

II. Listing of Claims

1. (Currently Amended): A drive assembly for a supercharger comprising, in combination,
 - an input adapted for driving by an internal combustion engine,
 - a hydrostatic transmission having a motor assembly driven by said input, a pump assembly and a swash plate assembly driving an output gear,
 - a planetary gear assembly having a carrier coupled to said input and supporting a plurality of planet gears, a ring gear having internal gear teeth engaged by said planet gears and external gear teeth engaged by said output gear of said hydrostatic transmission and a sun gear engaged by said planet gears, and
 - a supercharger having an impeller operably coupled to said sun gear.
2. (Original): The drive assembly for a supercharger of claim 1 wherein said input shaft includes a pulley and said pulley is driven by a belt.
3. (Cancelled).
4. (Original): The drive assembly for a supercharger of claim 1 further including a drive gear on said input shaft and a driven gear engaged by said drive gear for driving said hydrostatic transmission.
5. (Currently Amended): The drive assembly for a supercharger of claim 1 further including means for sensing a speed of said turbocharger impeller and

means for adjusting ~~[[the]]~~ a ratio of input and output speeds of said hydrostatic transmission.

6. (Original): The drive assembly for a supercharger of claim 5 wherein said means for sensing includes a tone wheel disposed for rotation with said sun gear and a sensor disposed in sensing relationship with said tone wheel.

7. (Currently Amended): The drive assembly for a supercharger of claim 1 further including a microprocessor ~~adapted to receive~~ having means for receiving a speed of ~~[[and]]~~ an engine and means for adjusting ~~[[the]]~~ ratio of input and output speeds of said hydrostatic transmission.

8. (Currently Amended): A drive assembly for a supercharger comprising, in combination,

an input shaft adapted to be driven by an internal combustion engine,

a continuously variable hydrostatic transmission having ~~an input a~~ motor assembly driven by said input shaft, a pump assembly and a swash plate assembly driving an output,

a planetary gear assembly having a carrier coupled to said input shaft and supporting a plurality of planet gears, a ring gear having internal gear teeth engaged by said planet gears and ~~external gear teeth engaged~~ driven by said output ~~gear of said output gear~~ of said continuously variable hydrostatic transmission and a sun gear engaged by said planet gears and having a sun gear, and

a supercharger having an impeller ~~coupled to~~ driven by said sun gear.

9. (Original): The drive assembly for a supercharger of claim 8 further including a drive gear on said input shaft and a driven gear engaged by said drive gear for driving said hydrostatic transmission.

10. (Cancelled).

11. (Original): The drive assembly for a supercharger of claim 8 wherein said input shaft includes a pulley and said pulley is driven by a belt.

12. (Original): The drive assembly for a supercharger of claim 8 further including means for sensing a speed of said turbocharger impeller and means for adjusting the ratio of input and output speeds of said hydrostatic transmission.

13. (Original): The drive assembly for a supercharger of claim 12 wherein said means for sensing includes a tone wheel disposed for rotation with said sun gear and a sensor disposed in sensing relationship with said tone wheel.

14. (Original): The drive assembly for a supercharger of claim 8 including a microprocessor adapted to receive a speed of and an engine and means for adjusting the ratio of input and output speeds of said continuously variable transmission.

15. (Currently Amended): A constant speed drive assembly for a supercharger comprising, in combination,

an input shaft adapted to be driven by an internal combustion engine,

a continuously variable hydrostatic transmission having ~~an input a~~
~~motor assembly~~ driven by said input shaft, a pump assembly, a swash plate
assembly driving an output and a controller for adjusting the speed ratio between
said input shaft and said output,

a planetary gear assembly having a carrier coupled to said input shaft
and supporting a plurality of planet gears, a ring gear coupled to said output of said
continuously variable transmission and having internal gear teeth engaged by said
planet gears ~~and external gear teeth coupled to said output of said continuously~~
~~variable transmission~~ and a sun gear engaged by said planet gears, and

a supercharger having an impeller coupled to said sun gear,

a microprocessor means having a speed input and an output driving
said controller.

16. (Original): The drive assembly for a supercharger of claim 15 wherein
said input shaft includes a pulley and said pulley is driven by a belt.

17. (Cancelled).

18. (Original): The drive assembly for a supercharger of claim 15 further
including a drive gear on said input shaft and a driven gear engaged by said drive
gear for driving said continuously variable transmission.

19. (Original): The drive assembly for a supercharger of claim 15 further
including a tone wheel disposed for rotation with said sun gear and a sensor
disposed in sensing relationship with said tone wheel.

20. (Currently Amended): The drive assembly for a supercharger of claim 15 wherein said microprocessor ~~is adapted to receive~~ includes means for receiving a speed of ~~[[and]]~~ an engine and means for adjusting the ratio of input and output speeds of said continuously variable transmission.

21. (New): The drive assembly for a supercharger of claim 8 further including a gear on said output of said hydrostatic transmission and external gear teeth on said ring gear engaged by said gear on said hydrostatic transmission output.

22. (New): The drive assembly for a supercharger of claim 15 further including a gear on said output of said hydrostatic transmission and external gear teeth on said ring gear engaged by said gear on said hydrostatic transmission output.